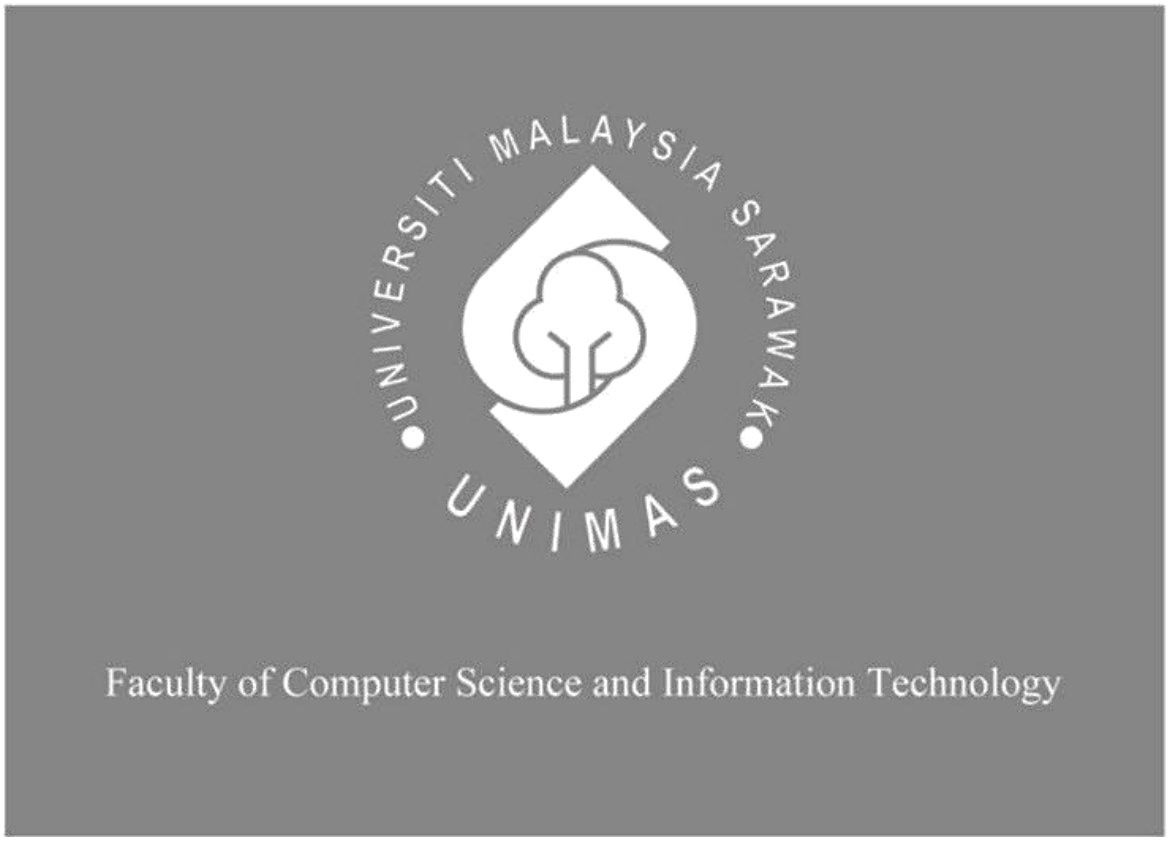

SARAKUP INDU DAYAK SARAWAK (SIDS) PHOTOGRAPHIC ARCHIVE

Diane Rachel Anak Jugah

Bachelor of Computer Science with Honours (Software Engineering)

2019

SARAKUP INDU DAYAK SARAWAK (SIDS) PHOTOGRAPHIC ARCHIVE

DIANE RACHEL ANAK JUGAH

This project is submitted in partial fulfilment of the

requirements for the degree of

Bachelor of Computer Science with Honours

(Software Engineering)

Faculty of Computer Science and Information Technology

UNIVERSITI MALAYSIA SARAWAK 2019

ARKIB FOTOGRAFI
SARAKUP INDU DAYAK SARAWAK (SIDS)

DIANE RACHEL ANAK JUGAH

Projek ini merupakan salah satu keperluan untuk

Ijazah Sarjana Muda

Sains Komputer dengan Kepujian

(Kejuruteraan Perisian)

Fakulti Sains Komputer dan Teknologi Maklumat

UNIVERSITI MALAYSIA SARAWAK 2019

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Validated by

(SUPERVISOR'S SIGNATURE)

Dr. Sarah Flora Samson Juan
Senior Lecturer
Faculty of Computer Science and Information Technology
Universiti Malaysia Sarawak
94300 Kota Samarahan, Sarawak
Malaysia.

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Faculty of Computer Science and Information Technology

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Lastly, I would like to thank my beloved family, friends and everyone who has positively encouraged me to complete this journey. Apart from that, they have cared and supported me throughout this journey. For that, I am deeply indebted to them.

ABSTRACT

Sarakup Indu Dayak Sarawak (SIDS) Photographic Archive is a web-based application that is used to manage historical photographs and kept them secured in one location for easy access. Over the past six decades, SIDS has organised a lot of activities, mainly involved Dayak cultural events and also community services. In order to keep the memories of these activities, they have captured a lot of photographs. Therefore, this system is essential to make sure those photographs are tenable and well-kept. This system aims to deliver a user-friendly and orderly-mannered system. The background of the study and the design approaches for the proposed system will be presented in this paper.

ABSTRAK

Arkib Fotografi Sarakup Indu Dayak Sarawak (SIDS) adalah aplikasi berasaskan web yang digunakan untuk menguruskan gambar-gambar sejarah dan menyimpannya di dalam satu lokasi untuk akses yang mudah. SIDS telah menganjurkan banyak aktiviti, terutamanya acara yang melibatkan budaya tradisional Dayak dan juga khidmat masyarakat sejak lebih daripada enam dekad. Mereka telah menangkap banyak gambar untuk disimpan sebagai kenangan. Oleh itu, sistem ini adalah penting untuk memastikan bahawa gambar-gambar tersebut dapat dipertahankan dan dipelihara dengan baik. Sistem ini bertujuan untuk menyampaikan sistem yang mesra pengguna dan teratur. Latar belakang kajian dan pendekatan reka bentuk untuk sistem ini akan dibentangkan dalam kertas ini.

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CHAPTER 1: INTRODUCTION

1.1 Project Title

Sarakup Indu Dayak Sarawak (SIDS) Photographic Archive.

1.2 Introduction

Photographs are one of the important form of media to provide a graphical record of the past and present events (Levinson & Lause, 1983). A billion of photographs taken often lead to problems since a large collection are hard to be classified or arranged, especially the unidentified photographs. So, one of the solutions to solve this problem is by cataloguing. Cataloguing can help to provide information about the history and background of the photographs. The information or detail of each photograph is very important for future references and it helps in identifying the photograph.

This project is to propose a management system for the historical photographs that have been captured by Sarakup Indu Dayak Sarawak. Sarakup Indu Dayak Sarawak (SIDS) is an association that was established under Sarawak Dayak National Union (SDNU) in May 1957. The first elected President of SIDS was Madam Barbara Bay. The association has provided a platform for independent Dayak women to deliberately discuss over development approaches and different courses of actions. SIDS has also organized a lot of events and community services. Hence, the aim of this project is to create a repository for the historical photographs with easier access within an orderly-mannered and deeply integrated digital environment.

1.3 Problem Statement

Sarakup Indu Dayak Sarawak (SIDS) has many photographs that are kept in printed form. The photographs are stored in more than one location. Most of the collections are stored in the headquarter and some are kept by members. Some of the photographs are also have no formal identifications or textual captions. Without a proper information, it is hard for repository staff to keep track of the photographs.

1.4 Objectives

Knowing the purpose or the objectives of project are advantageous in order to achieve a successful project. The objectives of this project are:

a) To design a management system for photographic materials.
b) To provide a platform where all the historical photographs can be stored in one location.
c) To establish a system where it can track a specific photograph according to its name, description or time.
d) To evaluate the proposed system using usability and developer's tests.

1.5 Methodology

Methodology is used to achieve the objective of the project that will accomplish a perfect result. The methodology that is selected to carry out this project is the Waterfall Model in System Development Life Cycle (SDLC) approach. This model also referred as linear-

sequential life cycle model (SDLC - Waterfall Model, n.d.). Figure 1.1 below shows the sequential phases in Waterfall model.

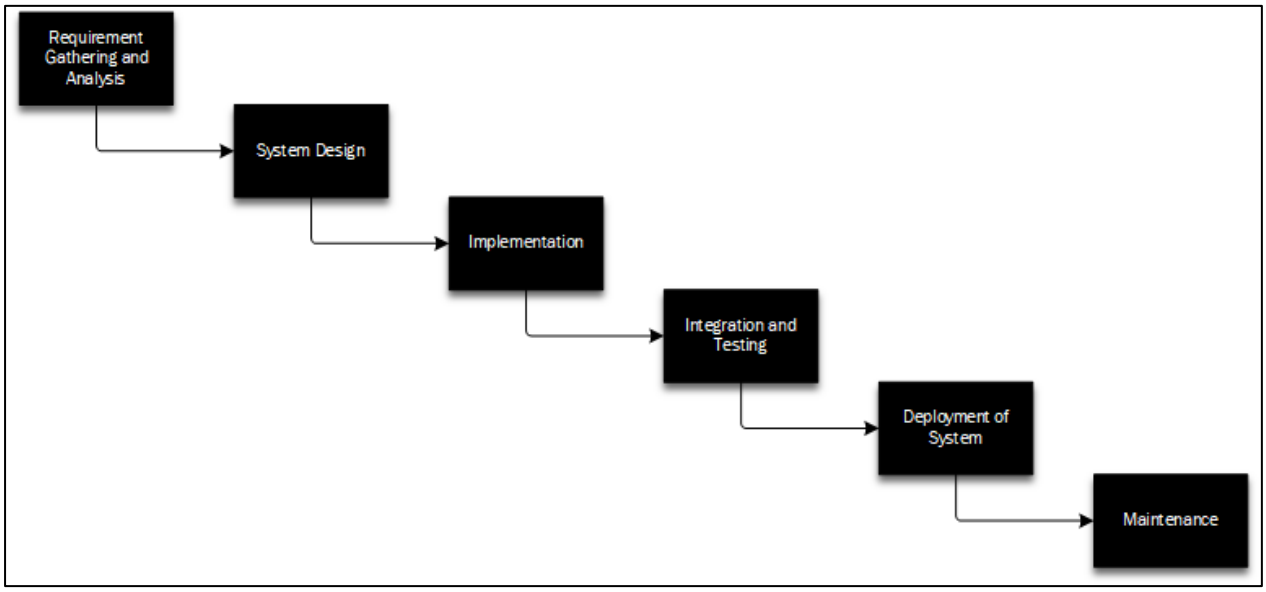


Figure 1.1: Waterfall Model in System Development Life Cycle (SDLC) approach

1.5.1 Requirement Gathering and Analysis

During this phase, the objectives of the project will be specified clearly. Also, the problem statement will be identified. A brief discussion was conducted with Madam Margaret Bedus, to obtain some information about SIDS and problems they have encountered. The requirement will also be gathered. Next, a project schedule will be created to determine what should and need to be done to ensure the project is completed on time. Information gathering will be carried on. A review about existing systems will be conducted and to be compared in term of the system features. The existing system that will be reviewed are Piwigo, FotoWeb and eHive. The results will be analysed, and table of comparison will be created. Also, a new feature will be proposed based on the analysis. Further explanation of this phase will be described in Chapter 2.

1.5.2 System Design

During this stage, a simple prototype of the system will be developed. User interfaces will be designed, and specific coding requirements of the system will be set. The requirement will be used as a guide to develop the system. Other than that, Data Flow Diagram (DFD) and Entity Relationship Diagram (ERD) will be created and wireframes will be designed as well. The detailed explanation will be discussed in Chapter 3.

1.5.3 Implementation

During implementation, the coding and building of the system is carried on. The specific coding requirements must be followed. The proposed system is a web-based, which will be built using PHP, HTML, CSS and Laravel framework. The system will be hosted offline temporarily using XAMPP. This stage will be further explained in Chapter 4.

1.5.4 Integration and Testing

Evaluation will be done in this stage. Also, before the completed system is released, it is important to test its functionality. A test plan is required to ensure the system satisfies the requirements and works well. The results of the test plan will be documented so the maintenance can be done from time to time. Any bugs or errors must be fixed instantly.

1.5.5 Deployment of system

In this phase, the completed system will be released and installed. The system will be migrated and hosted online. System training will also be carried out.

1.5.6 Maintenance

The system analyst will constantly conduct the analysis to improve the system and any improvement that comes to mind will be informed to the developers and the association. Everything that is related to this system must be documented so that it eases any changes.

1.6 Scope

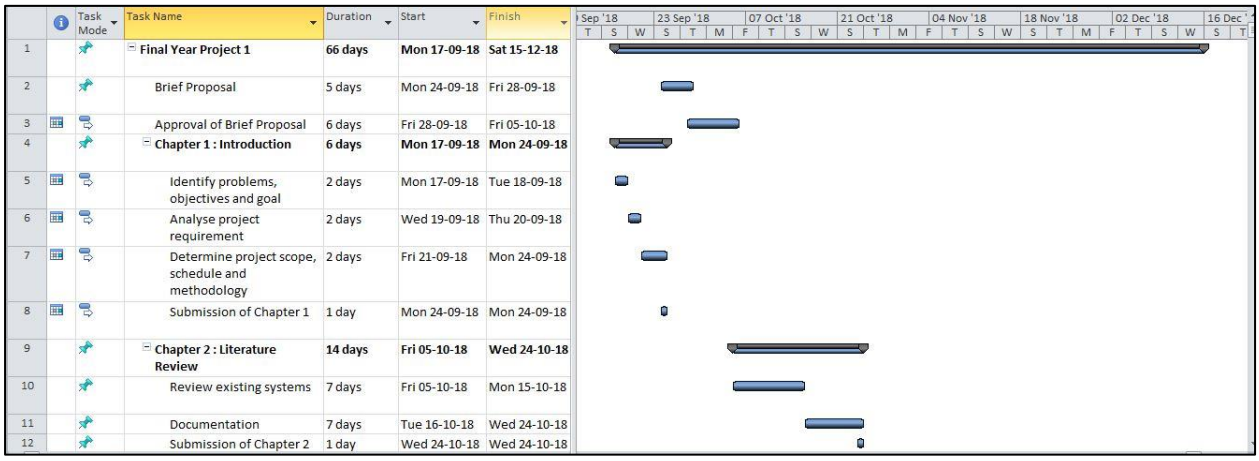
Determining the project scope is necessary to identify the work boundaries and deliverables of the project to ensure that what needs to get done, gets done. This system is designed to keep and manage the photographs. The main target user is the administrator. This system will allow the system administrator to create photo album and categorised the photo according to its respective description. The administrator will be able to create or delete album and photo as well as add the details of the photo such as its date, event, people in the photo and brief descriptions. The uploaded photograph and its details will be saved into the its database. It will have a search function to find and display the desired photograph. There will be a filter to ease the searching. Other than that, other users with the access can only search, view and download the displayed photo.

1.7 Significance of Project

The main idea of this project is to create a platform to manage and catalogue photographic archives. It is vital to preserve historical memories in any form possible for future references. As mentioned in the introduction, the system will deliver a better access and storage to the photographs. The system will have a feature where the description of the specific photograph can be added. This can help to ease the finding and keeping track of the photographs. In addition, the photographs can be secured in one location and the possibilities of losing them are low.

1.8 Project Schedule

This project is divided into two parts, which are Final Year Project 1 and Final Year Project 2. The task that taking longer period to be completed is Final Year Project 2, which is basically the implementation and development of the system. Figure 1.2, Figure 1.3 and Figure 1.4 show the tasks that will be done throughout this project.



	Task Mode	Task Name	Duration	Start	Finish
1		**Final Year Project 1**	**66 days**	**Mon 17-09-18**	**Sat 15-12-18**
2		Brief Proposal	5 days	Mon 24-09-18	Fri 28-09-18
3		Approval of Brief Proposal	6 days	Fri 28-09-18	Fri 05-10-18
4		**Chapter 1 : Introduction**	**6 days**	**Mon 17-09-18**	**Mon 24-09-18**
5		Identify problems, objectives and goal	2 days	Mon 17-09-18	Tue 18-09-18
6		Analyse project requirement	2 days	Wed 19-09-18	Thu 20-09-18
7		Determine project scope, schedule and methodology	2 days	Fri 21-09-18	Mon 24-09-18
8		Submission of Chapter 1	1 day	Mon 24-09-18	Mon 24-09-18
9		**Chapter 2 : Literature Review**	**14 days**	**Fri 05-10-18**	**Wed 24-10-18**
10		Review existing systems	7 days	Fri 05-10-18	Mon 15-10-18
11		Documentation	7 days	Tue 16-10-18	Wed 24-10-18
12		Submission of Chapter 2	1 day	Wed 24-10-18	Wed 24-10-18

Figure 1.2 (i): Project Schedule for the Final Year Project

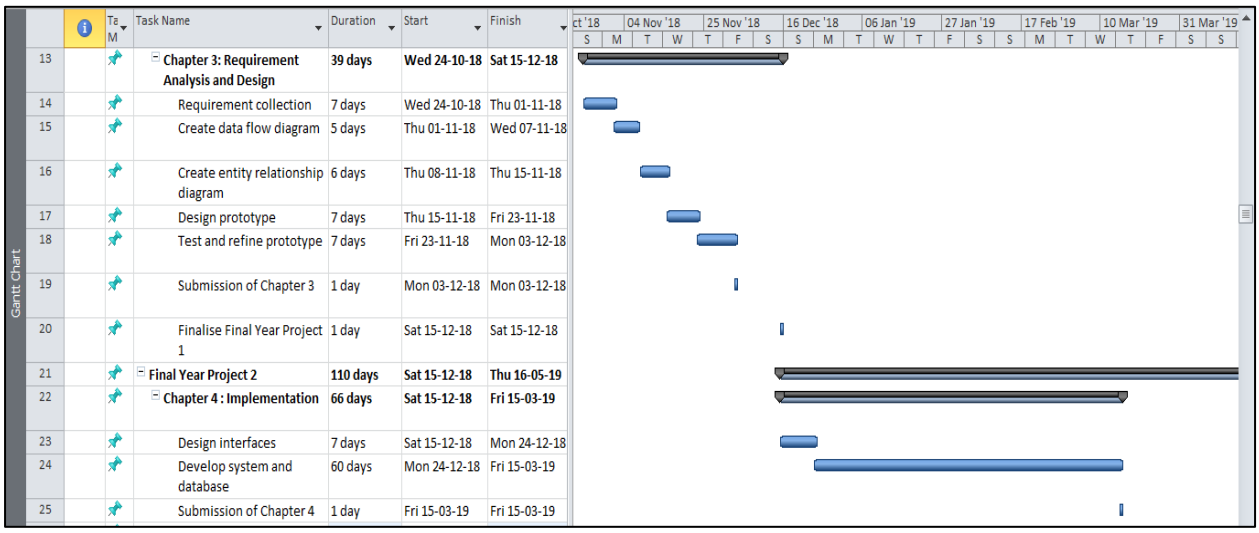


Figure 1.3 (ii): Project Schedule for the Final Year Project

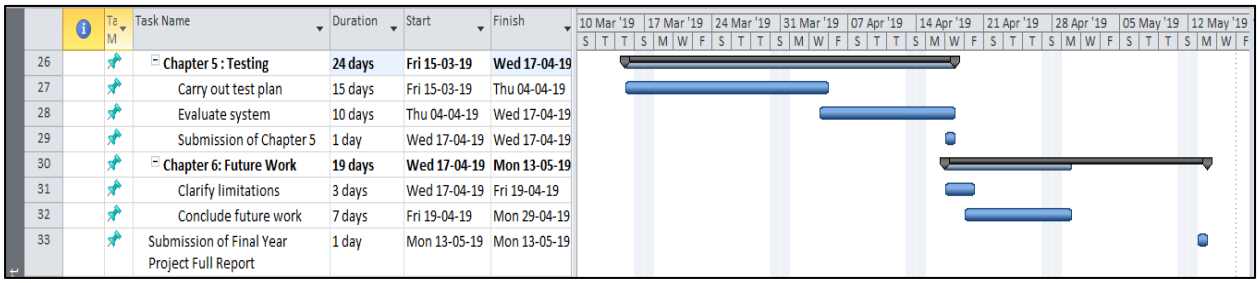


Figure 1.4(iii): Project Schedule for the Final Year Project

1.9 Expected Outcome

Towards the completion the project, the most expected outcome is a well-functioning system to catalogue the photographs. The system should meet the user needs and requirements. It is expected to be used for long run. Lastly, the system should be user-friendly so anyone who is using the system will be comfortable and familiar with it.

1.10 Project Report Outline

1.10.1 Chapter 1: Introduction

Chapter 1 represents the introduction of the proposed system. This chapter contains the problem statement, objectives, the methodology used, project scope, significance of project, project schedule and the expected outcome of the project. The problem statement describes the challenges faced by the current system. The objectives clarify the project's goal that is expected to be achieved by the end of development. The methodology explains the process of developing the system. The scope explains the boundaries of the project to be developed. The expected outcome describes the final outcomes once the project is completed.

1.10.2 Chapter 2: Literature Review

Chapter 2 discusses about the review done in term of system features on existing systems that are similar to the proposed project. Based on the comparison between the existing systems, better system features will be proposed. At the end of the chapter, there will be descriptions and reviews on the software tools and web technologies that are utilized for the implementation of this project.

1.10.3 Chapter 3: Requirement Analysis and Design

Chapter 3 deliberates about the methodology utilized for the development of the entire project. The Waterfall model in System Development Life Cycle (SDLC) will be used as a guide to develop the proposed system. This chapter also explains the method of getting

requirements from the client of the system. This chapter will include the Data Flow Diagram (DFD) and Entity Relationship Diagram (ERD) to show the system database design and flows.

1.10.4 Chapter 4: Implementation

Chapter 4 depicts a thorough description of the system implementation. The structure of the system is shown using screenshots and the interface layout. This chapter will also explain how the proposed system will be developed using PHP, HTML, CSS and Laravel framework.

1.10.5 Chapter 5: Testing

This chapter explains about the testing conducted in the system, whereby the systems features are evaluated to improve its performance. The main goal of testing is to assure the quality of a system. The system should meet its operational requirements, minimal errors and optimize user experience besides exhibit good performance.

1.10.6 Chapter 6: Conclusion and Future Work

Chapter 6 concludes the entire project and the outline of future work. Based on the test results in the previous chapter, recommendations or suggestions for possible enhancements in the future will be given.